

FORM A – TECHNICAL PROPOSAL SUBMISSION FORM

Simpson Road over Stackpole Creek

CPM Constructors

(Name of Proposer)

The above Proposer hereby submits its Technical Proposal, consisting of the following items:

(Instructions: Specifically list all items submitted with the Technical Proposal, including number of drawings, number of narrative pages, etc. Attach or incorporate additional pages as necessary. Refer to the Project Requirements for additional instructions regarding Technical Proposal submission.)

Technical Proposal Narrative (3 pages)
Personal & Corporate Experience (8 pages)
Plan (2 pages)

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

1. The Proposer has received and considered complete copies of Amendments numbered 1 through 2.
2. The Design-Builder, Designer, other Major Participants and key personnel indicated by the Proposer in its Statement of Qualifications will be used on this Project in the same manner and to the same extent as so indicated.
3. All of the statements, representations, covenants and/or certifications set forth in the Proposal are complete and accurate as of the date hereof.
4. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
5. This Technical Proposal is responsive.
6. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: ____ .]

PROPOSER

Date [Sign in Ink]

By:

[Name and Title Printed]



30 Bonney Street
P.O. Box B
Freeport, Maine 04032
Phone: 207.865.0000
Fax: 207.865.4836

www.cpmconstructors.com

Corporate Resolution for Signature Authority

Resolved:

Timothy A. Ouellette, Treasurer/Principal, is authorized to act for and on behalf of the corporation, and to sign all documents necessary for the conduct of business for CPM Constructors.

The above is a true copy of the records of the CPM Constructors, which records are in my legal custody.

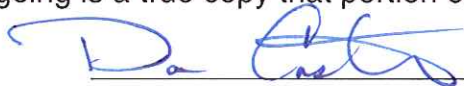


Signature of Official Having Custody of the Records

Printed Name **Paul M. Koziell, Secretary**

STATE OF MAINE
Cumberland County

Personally appeared **Paul M. Koziell** (Title) **Secretary** of the **CPM Constructors** Corporation, and made oath that he/she is the custodian of the corporation records that the foregoing is a true copy that portion of the records to which it relates.



Notary Public

3-23-15
Date

Printed Name: **Donna Castaldi**

DONNA L. CASTALDI
Notary Public, Maine
My Commission Expires February 24, 2017

Technical Proposal

Simpson Road over Stackpole Creek

Bridge Rehabilitation Design/Build Proposal

Introduction

CPM Constructors and its proposed team members, GEI Consultants and Structures North, propose to conduct repairs to the existing Stackpole Bridge that will retain the historic nature of the structure. The work will provide a new span over the existing granite arch that meets loading requirements, improve the hydrology of the stream flowing through the arch and carry two-way traffic on Simpson Road over the stream for the first time since 2013.

A. Team Description

CPM Constructors is the proposed Design Builder for this project. The Design-Build team proposes a rehabilitation to the existing bridge that will retain the historic character of the bridge while providing the City of Saco with the design requirements to provide public transport and access to emergency services. CPM's team includes Structures North of Salem, Mass. and GEI Consultants of Woburn, Mass.

CPM Constructors is a qualified Bridge Construction firm with the Maine Department of Transportation. CPM Constructors has performed multiple design-build and historic rehabilitation bridge construction projects in recent years. GEI Consultants is a geotechnical engineering firm with experience in hydrology. GEI provided some initial geotechnical investigations of the Stackpole Bridge. GEI maintains an office in Portland, Maine. Structures North conducted initial investigations to retain the current bridge structure.

All team members carry the required insurances noted in the Request for Proposals.

B. Project Team

The proposed Key Personnel for this Project are:

Team Leader:	Tim Ouellette, CPM Constructors
Design:	John Wathne, P.E., Structures North
Environmental Permitting:	Christopher Karam, P.E., GEI Consultants
Utility Coordination:	Andrew McPherson, P.E., CPM Constructors
Construction Manager:	Andrew McPherson, P.E., CPM Constructors

The team leader for this project is Tim Ouellette, one of the principals at CPM Constructors. He has been involved in multiple design build projects at CPM

Constructors, from proposal preparation through construction. Some of these include Martins Point Bridge Replacement (Portland) Design Build Project and Mile Brook Bridge Replacement (Winslow) Design Build Project for the Maine Department of Transportation. The Construction Project Manager will be Andrew McPherson, P.E. He has been an estimator and project manager for heavy and bridge construction projects in Maine for 33 years. Christopher Karam, P.E. with GEI Consultants, will handle environmental permitting. John Wathne of Structures North will handle overall design for the renovation. Resumes with related project experience are attached.

Personal experience and corporate resumes for the team are attached to this narrative.

C. Scope of Services

CPM Constructors intends to preserve the existing structure. This will be accomplished by reinforcing the existing masonry with grout and stainless steel pins. The arch will remain the same with some mortar parging. Based on our analysis, these repairs will increase the hydraulic flow through the arch. The downstream masonry will be pinned, but not parged, to allow drainage within the structure.

The basis of our design is to bridge over the entire existing structure with a reinforced, lightweight concrete slab. This will be accomplished with both lightweight concrete and geofoam concrete blocks cast into the three-foot deep concrete slab. The slab will have high performance membrane waterproofing installed over it, and the entire portion of the approaches and slabs will be paved with four inches of hot bituminous asphalt. The slab will be supported by 16 micropiles as shown on the plans attached to this narrative. The bridge rail and approach rails will be wooden. The profile grade will remain essentially as is, with some minor changes that will be incorporated into the final design.

D. Project Schedule

If awarded a contract with the City, the Project Team will begin design work during Spring 2015, with an anticipated mobilization date of June 2015 on site. Most construction work will be completed during the 2015 construction season. Final cleanup and paving will take place during April and May of 2016.

E. Project References

CPM Constructors:

- Martins Point Bridge Design Build Project, Maine DOT - Craig Hurd, Resident Engineer, Maine DOT
- Cribstone Bridge Rehabilitation Project, Maine DOT - Peter Brown, Resident Engineer, Maine DOT (AGC Build Maine Award Winner) Repairs to Historic Bridge made of dry-laid granite to allow the tides to pass through the bridge abutments.

- Mechanic Street Seawall, City of Portsmouth, NH – Tom Richter, City Engineer. Repairs to historic seawall in the Strawberry Bank section of the city.
- Porter-Parsonsfield Covered Bridge Rehabilitation - Maine DOT
- Stone Bridge Rehabilitations, Acadia National Park

CPM Constructors has also conducted bridge and road repair work in Saco for Maine DOT and the Maine Turnpike Authority over the years, most recently conducting repairs to the Saco River Bridge on the Maine Turnpike. In the 1990s CPM Constructors replaced 5 bridges over the Saco River on Route 9 between Saco and Biddeford. Additionally, CPM Constructors has conducted repairs to numerous historic bridges in Maine in recent years. Some are attached in our project experience overviews.

Structures North:

Worked on two similar stone arch bridges in Rhode Island.

GEI Consultants:

- Mass Highway I-93 Fast 14 Bridge Replacement Design-Build
- Mass Highway Route 79/I-195 Interchange Reconstruction Design-Build

More projects are listed in the corporate experience attached to this narrative.

Plans and Sketches

- A. The General Plan will remain the same since the team is maintaining the existing structure. A General Plan will be prepared as part of the design process upon award.
- B. Section view is attached.
- C. Profile/Elevation View is attached.
- D. Seal by Professional Engineer will be provided upon completion of design drawings.

CPM CONSTRUCTORS - MANAGEMENT

**TIMOTHY
OUELLETTE**

**CFO/PRINCIPAL
EEO OFFICER
CPM CONSTRUCTORS**

Associations:

- *President, Associated
General Contractors of
Maine*

Summary: Twelve years construction management experience with previous work in government contracts management, technical and business writing and computer operations.

Work History

**1998-Present, Treasurer, EEO Officer, Principal
CPM Constructors, Freeport, Maine**

Manages all financial aspects of construction including bank and bonding relationships, work on hand schedules, capital purchases, tax planning and yearly budget planning. Manages all crew scheduling and project oversight. Negotiates liability and workers compensation insurance policies, manages computer operations and computer purchasing, tracks personnel information and benefits, and creates and distributes company newsletter. Bids and manages National Guard task orders. Oversees safety programs, jobsite inspections, personnel issues, data and telephone communications and equipment fleet tracking, registration requirements and permitting. Has been EEO Officer since starting at CPM, in charge of developing, updating and implementing Civil Rights policies and procedures, providing employee training, managing hiring practices and tracking women and minority recruiting and employment.

1994-1998, Senior Editor, Computerworld, Framingham, Mass

Wrote and edited technical articles for a wide range of computer and business management issues. Some specific areas included IBM corporate, mainframe computing, large scale data storage, technical and business career issues and stock market trends.

**1991-1994, Contract Specialist, US Marine Corps Systems Command,
Arlington, Virginia and Camp Pendleton, California**

Managed defense contracts from RFP development through pre-bid conferences to award. Took part in special team tasked with re-writing tactical systems requirements and specifications for the Marine Corps Systems Command.

Education

**B.A. English/Business Administration
University of New Hampshire, 1991**



CPM CONSTRUCTORS - MANAGEMENT

**ANDREW
MCPHERSON,
P.E.**

**PROJECT
MANAGER**
CPM CONSTRUCTORS

Register Engineer:
Maine

Licensed Forester

Associations:

- Maine Better Transportation Association
- Associated Constructors of Maine
- American Society of Civil Engineers
- Society of American Foresters

Summary: Over 30 years of estimating, project management, supervisory experience on heavy construction, building and commercial development projects.

Work History

2013-Present, Estimator/Project Manager, CPM Constructors, Freeport, Maine

Responsible for heavy construction projects in Maine, Vermont, and New Hampshire. Manages acquisition, estimating, project management, and owner negotiations. Works projects from initial phases to project completion. Selects and negotiates prices with subcontractors and suppliers, and supervises project superintendents, field engineers, and foremen.

2008-2013, General Manager, Technical Construction Inc., Turner, Maine

Responsible for all estimating, management and general management of heavy construction operations on bridge projects across Maine.

2000-2008, Self-Employed, McPherson Engineering and Construction Consulting, Hallowell, Maine

Provided design and consulting services for contractors and developers on projects throughout Maine

1995-2000, Estimator/Project Manager, CPM Constructors, Freeport, Maine

Responsible for heavy construction projects in Maine, Vermont, and New Hampshire. Manages acquisition, estimating, project management, and owner negotiations. Works projects from initial phases to project completion. Selects and negotiates prices with subcontractors and suppliers, and supervises project superintendents, field engineers, and foremen.

Education

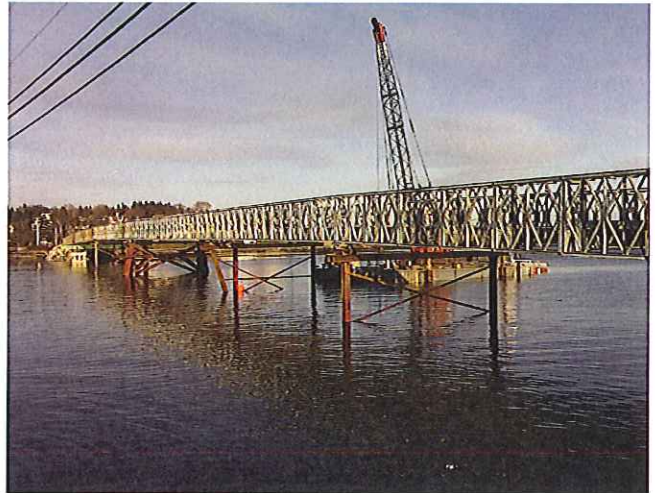
B.S. Forest Engineering University of Maine at Orono 1982

M.S. Business, Husson College, 1992



CPM CONSTRUCTORS – PROJECTS

BAILEY'S ISLAND/CRIBSTONE BRIDGE



Price: \$11,000,000
Location: Harpswell, Maine
Owner: Maine Department of Transportation
Time: Started 2008, Opened Nov. 2010

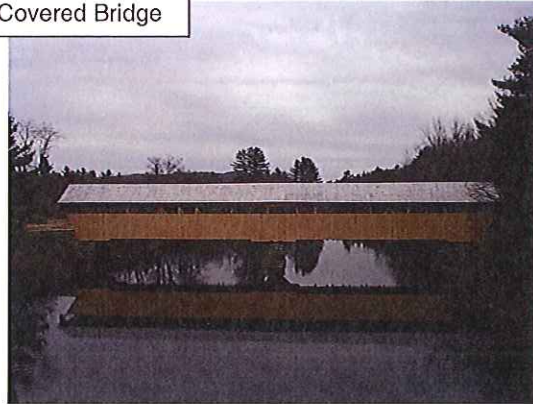
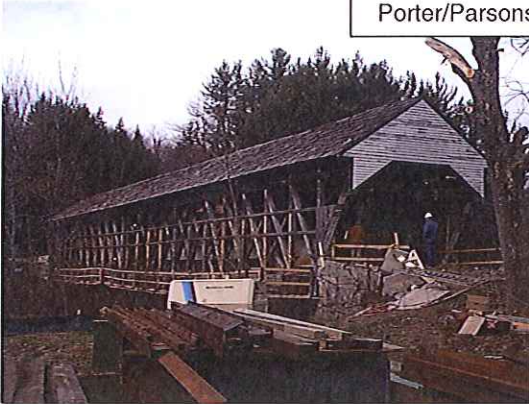
Built in-water detour prior to repairing existing historic Cribstone Bridge to Bailey's Island. Involved driving pier piles and barge access to work areas. Replaced existing granite substructure using traditional masonry techniques. Won Build Maine Award 2011.



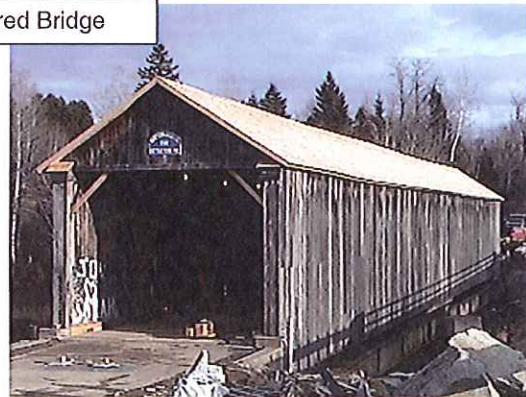
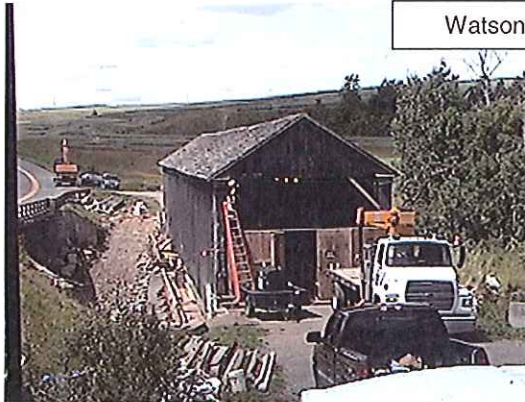
CPM CONSTRUCTORS – PROJECTS

COVERED BRIDGES

Porter/Parsonsfield Covered Bridge



Watson Covered Bridge



Price: \$700,000 each

Location: Porter/Parsonsfield & Littleton, Maine

Owner: Maine DOT

Time: 1999 & 2004

Renovated Porter/Parsonsfield Bridge, including pier repairs and major cords to the existing wooden arches, using many of the original builder's methods. Renovated the Watson Covered Bridge in Littleton, replacing wooden members and straightening the bridge. Both bridges won the Build Maine Award (2000 & 2004).



Abbreviated Qualifications

John M Wathne, PE

President, Principal Structural Engineer

EDUCATION

BS, Civil Engineering

Lehigh University,
Bethlehem, PA

REGISTRATIONS

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Georgia
Alabama
New York
Maryland
Pennsylvania

AFFILIATIONS

American Society of Testing
and Materials, Committee
C12.03.3, Chair
ICRI Committee 410 Co-
Chair
Association for Preservation
Technology
Preservation Massachusetts
Boston Preservation Alliance
Historic Salem Inc, 55 year
old arch. pres. society,
President '95-'97
Marblehead Arts
Association- Juried Artist
Member
Newburyport Arts
Association- Artist Member

PROFILE

Mr. Wathne has a wide range of structural analysis and design experience related to historic building restoration and renovation, and considerable bridge experience. He has experience in nearly all types of existing structures with an emphasis on construction built before or during the nineteenth century. He has hands-on experience with masonry restoration and post and beam timber framing and significant inspection, analysis, and design experience with concrete, terra-cotta, brick, stone, timber, and iron and early low carbon steel structures in archaic as well as modern-day applications. He is experienced in the restoration and repair of totally preserved structures as well as the adaptive re-use of partially preserved and abandoned structures.

Mr. Wathne also experience in the design and detailing of new structures of all material types and configurations.

He has designed a 750 foot long railroad transit flyover, Beachmont Station, on the Boston MBTA's Blue Line, is the Engineer of Record on the rehabilitation of two stone arch bridges in the State of Rhode Island using the Cintec ArchTec system, and recently evaluated and stabilized a 160 year old, 80 foot tall bridge pier supporting Washington DC's Marc commuter and Amtrak and CSX's main line from Washington DC to Chicago, allowing speed restrictions that had been imposed to be lifted.

Mr. Wathne is an expert in the evaluation of historic masonry and the design and specification of mortars for historic structures. He is the chair of American Society of Testing and Materials (ASTM) Task Group C12.03.03 that has recently completed development of ASTM's new "Standard Specification for Mortars for Existing Masonry", ASTM C1713, now published in 30 countries.

Mr. Wathne is also the co-chair of the Masonry Committee of the International Concrete Repair Institute.

Mr. Wathne is also the founder and president of VoidSpan Technologies, LLC, which produces specialty lime based restoration mortars and grouts as well as his own patented Port Anchor system, which is manufactured under license by Cintec International, LTD.

GEI – Firm Overview

GEI is a mid-sized, internally-owned consulting firm specializing in geotechnical, environmental, water resources engineering and planning, and ecological sciences. Our services support all project activities from initial project feasibility assessment and planning, detailed studies and design through construction, testing, and final documentation.

With over 700 people working in 37 offices from coast to coast, GEI has achieved a national reputation for our commitment to client service, teamwork and collaboration, technical expertise and innovation, strong risk management, and high quality work products. The Stackpole Bridge project will be staffed from our Portland, ME office, with additional support from staff in our corporate headquarters in Woburn, MA.

GEI's engineers specialize in developing creative geotechnical solutions for challenging projects such as:

- MassDOT I-93 Fast 14 Bridge Replacement Design-Build
- MassDOT Route 79/I-195 Interchange Reconstruction Design-Build
- MBTA Phase I and II of the Silver Line
- CA/T C09A4 Tunnel Jacking
- MassDOT Route 28/I-495 Interchange Reconstruction

GEI's technical staff work closely with clients to help ensure that their transportation projects and facilities are planned, constructed, and operated cost-effectively, safely, and in compliance with state and federal regulations.

GEI's transportation services span the country and include local, state, and federal agencies and private transportation companies including: Massport, MBTA, Merrimack Valley Regional Transportation Authority, Connecticut Airport Authority, San Francisco International Airport; DOTs in CA, CT, MA, ME, NH, NJ, OK, PA, RI, VT and WI; Army Corps of Engineers, Bureau of Reclamation, Fish and Wildlife Service, National Park Service, and Bureau of Indian Affairs; and Norfolk Southern, Canadian Pacific, BNSF, Delta Airlines, Amtrak and others.

GEI Key Staff:

Darren Clark, P.E. – Geotechnical. Mr. Clark is a civil engineer experienced geotechnical analysis, subsurface investigations, construction observation, and instrumentation. Mr. Clark has developed foundation design and construction recommendations and prepared geotechnical reports and has had extensive construction observation and field testing experience, including monitoring construction, installation and load testing of driven and drilled pile foundations, cross-hole sonic log testing of drilled shaft foundations, preparation of shallow foundation and floor slab subgrades, and compaction of soil. He has also prepared construction specifications, reviewed contractor submittals, and prepared construction quantity and cost estimates. His relevant previous project experience includes:

- K Street Substation Pile Observation, South Boston, MA. Micropile load testing and estimated bond length required for design capacity.
- Winter Street Bridge, Waltham, MA. Construction of a soil nail wall, with instrumentation program included inclinometers and observation wells installed behind the soil nail wall
- One First Street Development, Cambridge, Massachusetts. Redevelopment included demolition and renovation of existing buildings and construction of new buildings with repair of existing timber piles, load tests and construction observation of drilled micropiles and driven piles.
- Wellington Avenue Railroad Bridge, Warwick/Cranston, RI. Cross-hole sonic log testing of 4-foot and 6-foot diameter drilled shafts for new bridge foundations to evaluate the quality of the concrete in the shafts.

Jeanne LeFebvre, P.E. (Massachusetts) – Geotechnical. Ms. LeFebvre is an engineer specializing in geotechnical engineering. She has a wide range of experience including field investigations, geotechnical analysis and design, construction observation, and other construction and design activities for bridges, highways, buildings, dams, slopes, retaining wall, landfills, pipelines and other projects. Her relevant previous project experience includes:

- I-93 Fast 14 Bridge Superstructure Replacement Design-Build Project, Medford, Massachusetts. Providing geotechnical evaluation of existing bridge substructures including evaluations of construction loads, impact of seismic loads, global stability, lateral pile analyses, and pavement design parameters for 14 bridges to be completed on fast track schedule.
- Larz Anderson Bridge, Cambridge and Boston, Massachusetts. Geotechnical foundation evaluation of existing bridge and investigations for replacement of existing wingwalls. Prepared specifications for deep foundations and performed lateral pile analyses. Reviewed construction submittals for geotechnical work, and observed and documented micropile load tests and installation of micropiles during construction.
- River Street and Western Avenue Bridges, Cambridge and Boston, Massachusetts. Geotechnical design review services for design of rehabilitation of existing arch bridges. The scope of work includes review of geotechnical reports, calculations, plans, specifications, estimates, and details for conformance with FHWA and AASHTO standards.

Chris Karam, P.E. – Hydrology. Mr. Karam has over 25 years of experience in the civil engineering profession with a focus on hydrology and hydraulics for infrastructure projects including dams and bridges. His engineering expertise includes evaluating design storms using rainfall-runoff models and regression equations, hydraulic design for flow capacity, outlet velocities, and backwater water surface profiles for structural openings using HEC-RAS. Chris has performed hydraulic design for culverts, spillways, natural and man-made channels, bridge piers and abutment scour analysis. A recent bridge hydrologic and hydraulic project included evaluating the scour potential of the Riverside Park Stringer Bridge over the Charles River, Massachusetts Department of Conservation and Recreation in Newton and Weston, Massachusetts. Chris coordinated the bathymetric survey, performed a

hydrologic/hydraulic analysis and scour calculations, and developed scour countermeasure recommendations for the abutments, and two pier options for the 500-year flood.

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

CPM Constructors

(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

One Million one hundred ninety two thousand seven hundred fifty - five dollars
(Price in words – typed or printed in ink)

\$ 1,192,750 --
(Price in numbers – typed or printed in ink)

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

Forty Three Thousand Six Hundred Sixty two dollars
(Price in words – typed or printed in ink)

\$ 43,662 --
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Two Hundred Thirteen dollars
(Price in words – typed or printed in ink)

\$ 213.00
(Price in numbers – typed or printed in ink)

Appendix A
Form C

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

1. The Proposer has received and considered complete copies of Amendments numbered 1 through 2.
2. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
3. The Proposer's Price Proposal is complete and accurate and conforms to all applicable requirements of the RFP and Contract.
4. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: ____.]

PROPOSER

Date [Sign in Ink.]

By: _____

Timothy A. Dulla
3/23/15
Timothy A. Dulla
CFO / Principal

FORM B – PROPOSAL GUARANTY FORM

KNOW ALL MEN BY THESE PRESENTS THAT
CPM Constructors _____,
of the Town _____ of Freeport _____ and State of
Maine _____ as Principal, and The Ohio Casualty Insurance Company, as Surety, a
corporation duly organized under the laws of the State of New Hampshire and having a usual
place of business in South Portland, Maine and hereby held and firmly bound unto the City of
Saco in the sum of Five Percent (5%) of Amount Bid, for payment which Principal and Surety
bind themselves, their heirs, executors, administrators, successors and assigns, jointly and
severally.

The condition of this obligation is such that if the Principal has submitted to the City of
Saco, hereafter Owner, a certain proposal, attached hereto and incorporated as a part herein,
to enter into a written contract for the construction of the Simpson Road over Stackpole
Creek and if the Owner shall accept said proposal and the Principal shall execute and
deliver a contract in the form attached hereto (properly completed in accordance with said
proposal) and shall furnish bonds for his faithful performance of said contract and for the
payment of all persons performing labor or furnishing material in connection therewith, and
shall in all other respects perform the agreement created by the acceptance of said proposal,
then this obligation shall be null and void, otherwise it shall remain in full force and effect.

Signed and sealed this 23rd day of March, 20 15.

WITNESS:

[Signature]

PRINCIPAL: CPM Constructors

By: Timothy A. Duenkel
By: TIMOTHY A. DUENKEL
By: CEO / PRINCIPAL

WITNESS:

Maryn Cloutier

SURETY: The Ohio Casualty Insurance Company

By: Nancy A. Spaulding
By: Nancy A. Spaulding, Attorney-in-Fact

Name of Local Agency

Cross Insurance – Jones-Hoxie Division

WITNESS:

PRINCIPAL:

By: _____
By: _____
By: _____

WITNESS:

SURETY:

By: _____
By: _____

Name of Local Agency

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 6060826

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Jean E. Black; Michelle M. Ibarguen; Nancy A. Spaulding; Pamela J. Rogers

all of the city of Augusta, state of ME, each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 1st day of April, 2013.



STATE OF WASHINGTON
COUNTY OF KING

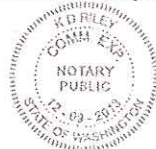
ss

American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

On this 1st day of April, 2013, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.



By: KD Riley
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 23rd day of March, 2015.



By: David M. Carey
David M. Carey, Assistant Secretary

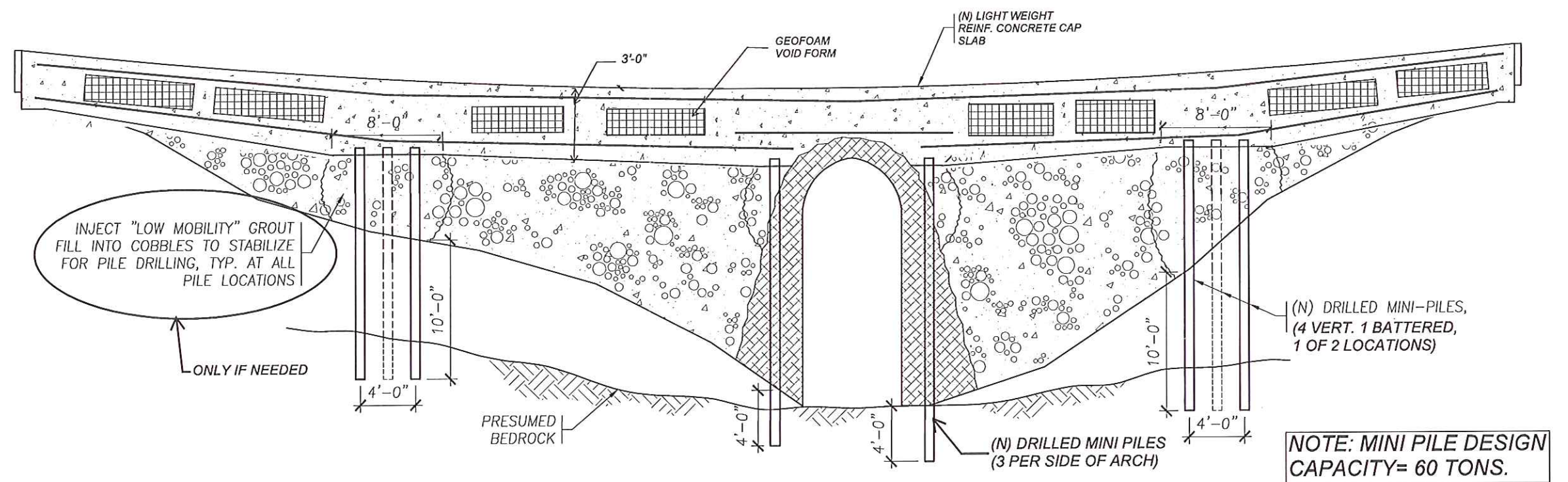
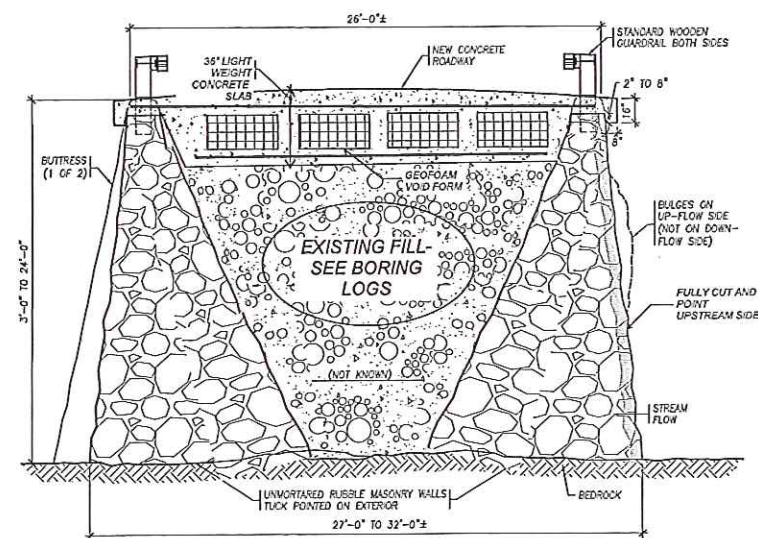
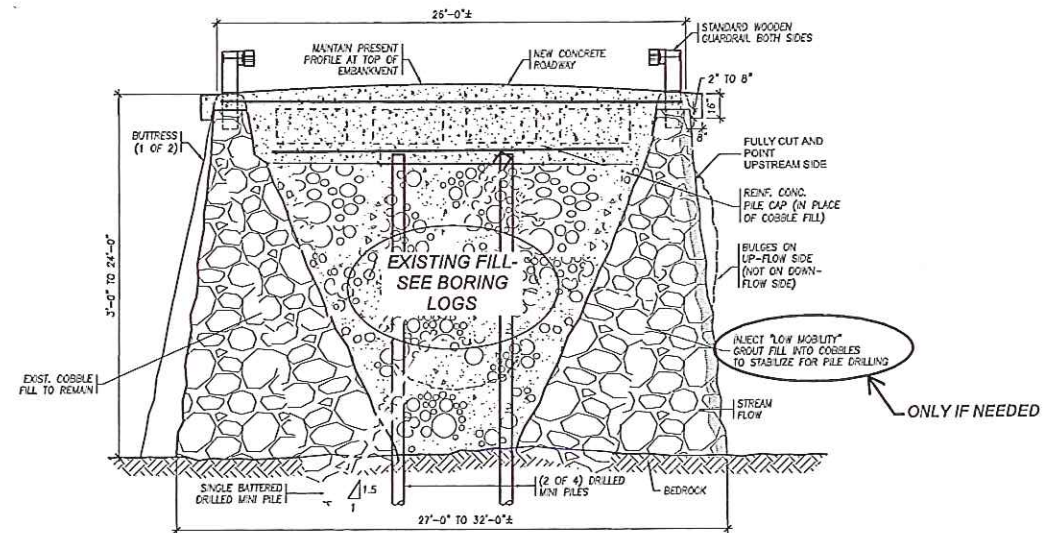


FIG. A: REVISED HYBRID SCHEME LONGITUDINAL SECTION



PROPOSED TRANSVERSE SECTION



TRANSVERSE SECTION AT MINI PILES

NOTE: MINI PILE DESIGN CAPACITY= 60 TONS.

FIG. B: REVISED HYBRID SCHEME TRANSVERSE SECTIONS